Item #30a : Noxious Weeds

Evaluation Objectives: To evaluate the extent and trend of noxious weed populations.

Methods: Weed inventories are done on the Flathead National Forest concurrently with botanical surveys for sensitive plants as well as concurrently with weed spraying. Additional inventories exclusively to search for tansy ragwort are also conducted, are not as extensive as in previous years.

Evaluation: As weeds are treated, they are monitored for efficiency of treatment and spread/reduction of the infestation.

Table 30a-1. Extent of Noxious Weed Species on the Flathead National Forest

Weed	Locations/Trend
Spotted Knapweed	Highest concentration is along roads and dry areas of the Flathead Forest (dry slopes, forest openings). Population is steady or increasing.
St. Johns-wort (Goatweed)	Highest concentration is along roads and dry areas of the Flathead Forest (dry slopes, forest openings). Population is steady or increasing.
Yellow/Orange Hawkweed	This weed complex is the fastest increasing weed on the forest. Rapid expansion is occurring along active and decommissioned roads, timber harvest units, and areas recovering from fire. It is found forest-wide, but with the largest infestations on the Tally Lake, Glacier View, areas on the North end of Hungry Horse Reservoir, and Island Unit of the Swan Lake Districts.
Oxeye Daisy	Highest concentration is along roads and dry areas of the Flathead Forest (meadows, forest openings). Population is steady or increasing.
Canada Thistle	Variable concentrations across the forest, especially in moist meadows and streamsides near roads. Populations are steady.
Tansy Ragwort	Huge successes in reducing this plant from over 1000 acres of infestation to cumulatively less than 5 acres. Individual plants or small patches are widespread across the Tally Lake and Glacier View Ranger Districts, but the establishment of 3 biocontrol agents (insects) have stopped growth of any infestations of significant size. Control efforts are now focused on outlying plants and on ensuring that biocontrol agents are found wherever tansy ragwort is found.
Yellow Toadflax	This plant appears to be increasing on the Flathead Forest in a variety of habitats, but it could be that populations were not known and recent inventory and monitoring has made their status more apparent. Population increases are slow, but the number of new places where this plant is being found has increased.
Dalmatian Toadflax	This plant has only a few locations on the Flathead Forest, and the populations are steady.
Houndstongue	This plant is not widespread, and mostly found on roadsides or disturbed soils. Populations are steady.
Leafy Spurge	The largest concentration of this plant is in the Bob Marshall Wilderness in the Danaher Meadows area. The population has declined

	from 5 acres to less than 1 acre, and the final acre has widely scattered plants. Control is continuing in this area. Other populations are on the Hungry Horse compound, Blankenship and Sportsman's Club area, the Bonneville powerline corridor near Columbia Falls, and the Skyland Road. Each of these populations is small and either steady or declining due to treatment.
Common Tansy	This plant is widely scattered along roadsides and rarely seen elsewhere. Populations are steady.
Sulfur Cinquefoil	The status of this plant is uncertain. There are a number of populations and most seem to be small, but may be increasing. It is most common on the Swan Lake Ranger District.
Tall Buttercup	The status of this plant is uncertain. Small populations have been identified on the Swan and Tally Lake and Glacier View Districts. Populations appear to be steady.
Field Bindweed	Only two sites of this plant are known on the Flathead Forest. One population is steady, the other is declining and may be eliminated.
Hoary Alyssum	This weed is only known at the Hungry Horse and the Swan Lake Administrative area. It has increased significantly there, but control efforts are underway. This plant is spreading rapidly on non-forest service land, so future infestations may be expected on the forest.
Dyer's Woad	A large infestation was identified on the Tally Lake district in 2009. Rapid response resulted in reducing the population from over 10,000 plants to about 30 plants.
Yellowflag Iris	Only one site of this plant is known on the Swan Lake Ranger District. Control efforts are beginning.
Other new invaders	No other new invaders have been identified on the Flathead National Forest, but several are on private, county or state lands nearby.

Approximately 3000 acres of weeds were wetted with herbicide in each year within a much larger area much larger. At least 50% of treated sites were revisited to determine efficacy of herbicide treatment. Annual review of 50% or more treatment sites will occur in the future as well.

Biological control agents (insects) are being used on the Flathead Forest to control tansy ragwort, spotted knapweed, Dalmatian toadflax, Canada thistle and St. Johns-wort. Bioagents have been extremely successful on tansy ragwort, and are becoming more and more established on spotted knapweed in some areas. Bioagents on Dalmatian toadflax, Canada thistle and St. Johns-wort have been released but are not yet well established.

Vehicle and/or equipment washing clauses have been added to timber sale contracts and are also a component of weed control during fires. Washing removes weed seeds and/or plant fragments or dirt and mud contaminated with seed.

Most timber sales administered by the Flathead Forest now require spraying of roads pre- or post-haul or both, often in multiple years. This effort reduces the amount of weeds within the road corridor which is considered a major vector for weed spread.

Re-seeding as part of integrated weed management has begun on the Flathead National Forest, but is not yet a fully established program. Dozer lines and disturbed sites associated with fire and small engineering projects are often re-seeded.

Seeding with certified weed free seed is required in all timber sale contracts and road packages for temporary road stabilization, skid trails, and landings.

The Flathead National Forest works with a variety of other agencies and landowners in the effort to control noxious weeds. These include the Flathead and Lincoln County Weed Districts, the Montana Department of Agriculture, the Kootenai National Forest, Glacier National Park, Montana Fish, Wildlife & Parks, Montana Department of Natural Resources, Bonneville Power Administration, Bureau of Reclamation, Burlington Northern Santa Fe, the Rocky Mountain Research Station, Plum Creek Timber Company, Rocky Mountain Elk Foundation, and numerous private landowners.

Employees of the Flathead National Forest in other resource areas besides weeds (fire, timber, recreation, etc.) receive annual training in noxious weed identification, and provide an invaluable service in locating and reporting new infestations of weeds. A reward program has been established since 2006 for identifying new invasive weeds on the Flathead National Forest.

Activities regarding weed management have been entered into the FACTS database since 2006. This includes weed control activities associated with timber sales, contract weed sprayers, force account crews, and the movement of biological agents.

Recommended Actions: Continue with inventory and treatment of noxious weeds. Make inventory a high priority within the Flathead National Forest's weed program, concentrating on locating and treating new invaders. Continue to evaluate the effectiveness of herbicide treatment and determine if re-seeding efforts are effective. Continue cooperative agreements with other agencies and entities. Continue educational efforts, especially of employees who help with locating new weed infestations in otherwise weed-free areas.